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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,797	04/27/2007	Maurizio Galimberti	07040.0258-00000	5909

22852 7590 11/18/2009  
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
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901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER
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FISCHER, JUSTIN R

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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11/18/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,797	<b>Applicant(s)</b> GALIMBERTI ET AL.	
	<b>Examiner</b> Justin R. Fischer	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 78-86,89-92,101,102 and 105-109 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 78-86,89-92,101,102 and 105-109 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>111009</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 10, 2009 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 78-83, 85, 86, 89-92, and 105-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandstrom (US 6,269,858) and further in view of Daviditz (US 3,976,598). Sandstrom expressly teaches a tire tread composition including at least one diene based elastomeric polymer, at least one methylene donor, and at least one methylene acceptor, wherein the disclosed loadings are consistent with those required by the claimed invention (Column 26, Lines 40+ and Tables 5+). The reference further teaches the inclusion of at least one inorganic filler, such as kaolin clay (Column 2, Lines 35+ and Column 5, Lines 34+). It is emphasized that there are an extremely limited number of disclosed inorganic fillers and as such, one of ordinary skill

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in the art at the time of the invention would have found it obvious to form the tread composition of Sandstrom, which expressly includes each of the claimed methylene acceptor and donor, with each of the disclosed inorganic fillers, including kaolin clay. Also, the results in Table 2 are not persuasive since Sandstrom expressly teaches a tread composition including a methylene acceptor, a methylene donor, and at least one inorganic filler, such as kaolin clay.

It is further noted that kaolin clay is recognized as a "layered material" and while Sandstrom fails to disclose the layer thickness, Daviditz teaches that the claimed values are consistent with those associated with kaolin clay (Column 2, Lines 1+). Also, the claimed loading between 1 and 50 phr, more preferably between 2 and 40, most preferably between 5 and 30 hr, is consistent with the conventional loadings for rubber additives in the tire industry and applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed loadings.

Lastly, it appears that the claimed dynamic modulus is a direct function of including a methylene acceptor, a methylene donor, and a layered material in a diene based composition usable in a tire tread. This is identical to the tread composition of Sandstrom and thus, one of ordinary skill in the art at the time of the invention would have expected the composition of Sandstrom to demonstrate the claimed dynamic modulus. It is particularly noted that applicant fails to define any unique processing steps and thus, it appears that the mechanical properties are directly related to the makeup of the tread composition.

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Regarding claims 79 and 80, as noted above, rubber additives are conventionally included at a loading between 5 and 30 phr and applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed loading.

With respect to claim 81, Daviditz teaches that kaolin clays are defined by layers having a thickness of about 0.7 nm.

As to claim 83, Sandstrom teaches a loading in accordance to the claimed invention (Tables 5+).

Regarding claims 85 and 86, Sandstrom is directed to a tire tread composition and one of ordinary skill in the art at the time of the invention would have found it obvious to use said composition in any known tread arrangement, including a cap/base assembly (conventional tread design).

With respect to claims 89-92, it appears that the claimed 100% modulus is a direct function of including a methylene acceptor, a methylene donor, and a layered material in a diene based composition usable in a tire tread. This is identical to the tread composition of Sandstrom and thus, one of ordinary skill in the art at the time of the invention would have expected the composition of Sandstrom to demonstrate the claimed dynamic modulus. It is particularly noted that applicant fails to define any unique processing steps and thus, it appears that the mechanical properties are directly related to the makeup of the tread composition. Lastly, it is noted that even the non inventive examples in Table 2 have mechanical properties in accordance to the claimed invention.

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As to claims 105-108, Sandstrom teaches a plurality of the claimed methylene donors and acceptors (Column 2, Lines 64+).

Regarding claim 109, the method in which the methylene donor and methylene acceptor are added to the base composition does not appear to further define the structure of the claimed tire article.

4. Claims 101 and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandstrom and Daviditz as applied in claim 78 above and further in view of Kondo (US 6,727,307). As detailed above, Sandstrom teaches a tread composition including a methylene donor, a methylene acceptor, and at least one inorganic filler, such as kaolin clay (layered material). While the reference fails to expressly teach the inclusion of montmorillonite clay, said clay is conventionally disclosed in an alternative manner with kaolin clay in tire tread compositions, as shown for example by Kondo (Column 9, Lines 10-35). As such, one of ordinary skill in the art at the time of the invention would have found it obvious to include montmorillonite clay in the tread composition of Sandstrom. Lastly, it is noted that applicant has not established a criticality for the use of montmorillonite clay, as opposed to kaolin clay.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 78-86, 89-92, 101, 102, and 105-109 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Justin Fischer  
/Justin R Fischer/  
Primary Examiner, Art Unit 1791  
November 13, 2009